

## INSTRUCTION MANUAL

# AUTO-PUMP<sup>®</sup>

## 12VDC

### AIR COMPRESSOR SYSTEM



#### NOTE :

The 091-9 Auto-Pump consists of  
a 12volt motor driven compressor

**MODEL # 091-9**

**INPUT : 12 volt, 12 amp**  
**OUTPUT : 100 PSI MAXIMUM**

**1 YEAR WARRANTY**

170 Cherry Avenue  
West Sayville, NY 11796  
[www.kussmaul.com](http://www.kussmaul.com)

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Ph: 800-346-0857  
Fax: 631-567-5826  
[sales@kussmaul.com](mailto:sales@kussmaul.com)

# **INTRODUCTION**

The Auto-Pump Air Compressor system is a compact electric motor operated single cylinder air compressor designed specifically for installation on vehicles with air brakes . During long idle periods of the vehicle when even the slightest seepage can cause an air brake system pressure to drop below the brake lockup pressure, the Auto Pump automatically starts to maintain the pressure.

The Auto Pump motor is directly coupled to the compressor section eliminating all belts and pulleys assuring long life and reliable operation . A heavy duty pressure switch is adjusted to start the compressor when the system pressure drops below 75 psi and stops the compressor when 95 psi is attained . The start up pressure is field adjustable - the pressure differential between start up and stopping is fixed. Please read and follow the installation instructions carefully . The Auto Pump requires no routine maintenance . A careful installation will assure years of trouble free operation.

# **CAUTION**

**NO CONDENSATE OR  
WATER MUST BE ALLOWED  
TO ENTER OR ACCUMULATE  
INTHE OUTPUT  
OF THE AUTO PUMP.  
ROUTE OUTPUT PRESSURE  
LINE DOWNWARD FROM  
AUTO PUMP TO PERMIT  
MOISTURE TO DRAIN AWAY.**

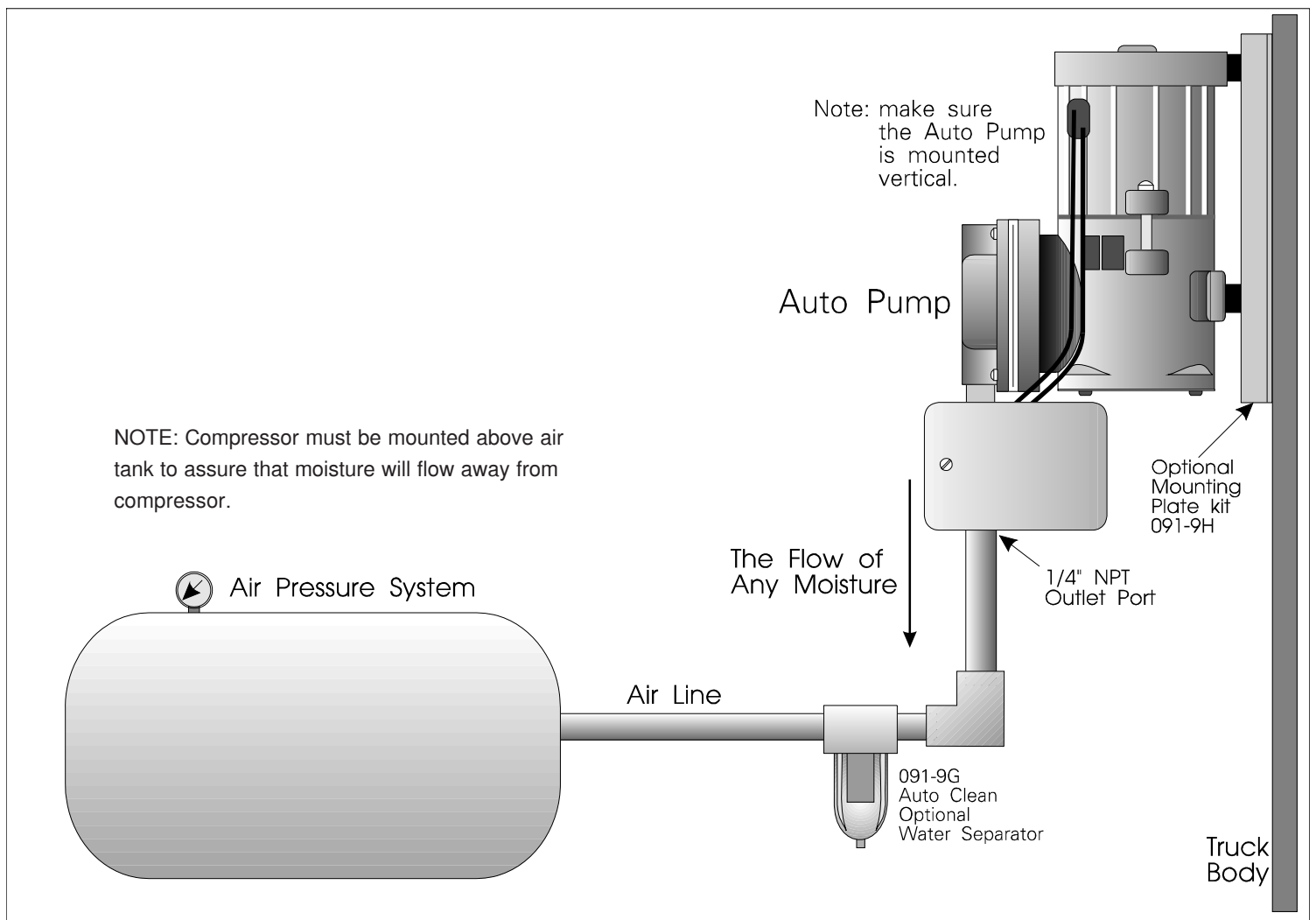
**WATER IN THE PUMP  
OUTLET WILL INDUCE**

# **FAILURE !**

**WATER DAMAGE WILL  
VOID WARRANTY**

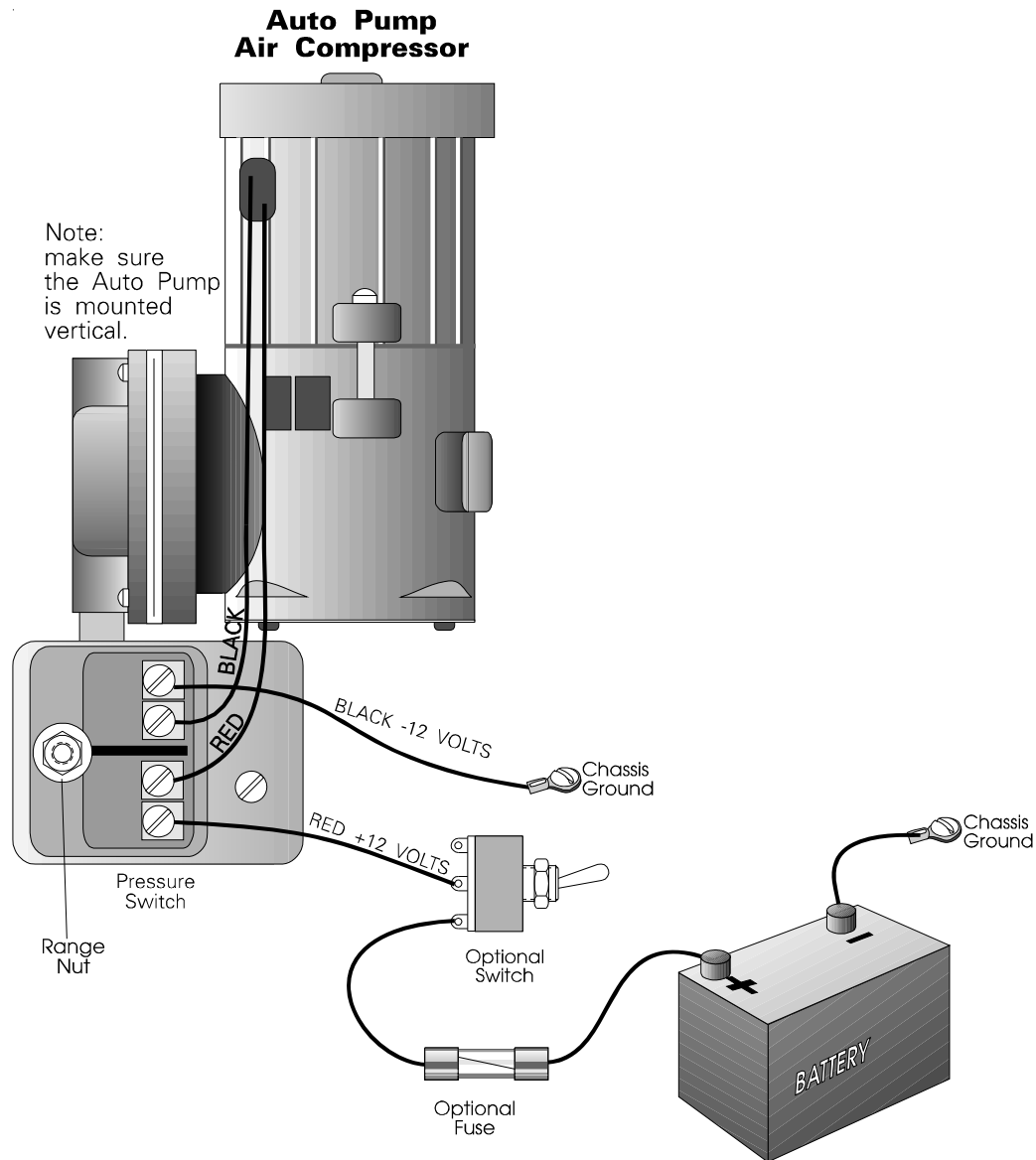
# VEHICLE TUBING INSTALLATION

1. Mount all components in a suitable location, preferably in a high area above the air system . Do not mount in engine compartment or near any source of heat or dirt . The system may be connected to any point in the vehicle's air system .
2. Mount air compressor in a vertical position as shown.
3. **CAUTION** no condensate or water must be allowed to enter or accumulate in the output of the Auto Pump . Route output pressure line downward from Auto Pump to permit moisture to drain away . **Water in the pump outlet will induce failure .**
4. All connection for air lines are 1/4" NPT . Use Teflon tape, or equivalent on all connections to insure no leakage of air.
5. The recommended installation of the Auto Pump air compressor system is shown below.
6. Mount the air compressor. Connect a suitable piece of flexible tubing from the outlet port of compressor to the air tank . (Tubing and connectors are not supplied .)
7. An optional water separator (Auto Clean 091-9G) is available to trap moisture in the air line and stop the flow of moisture back into compressor .
8. An optional Mounting Plate 091-9H is available to reduce any vibration and noise from Auto Pump and to simplify pump mounting.



# VEHICLE WIRING INSTALLATION

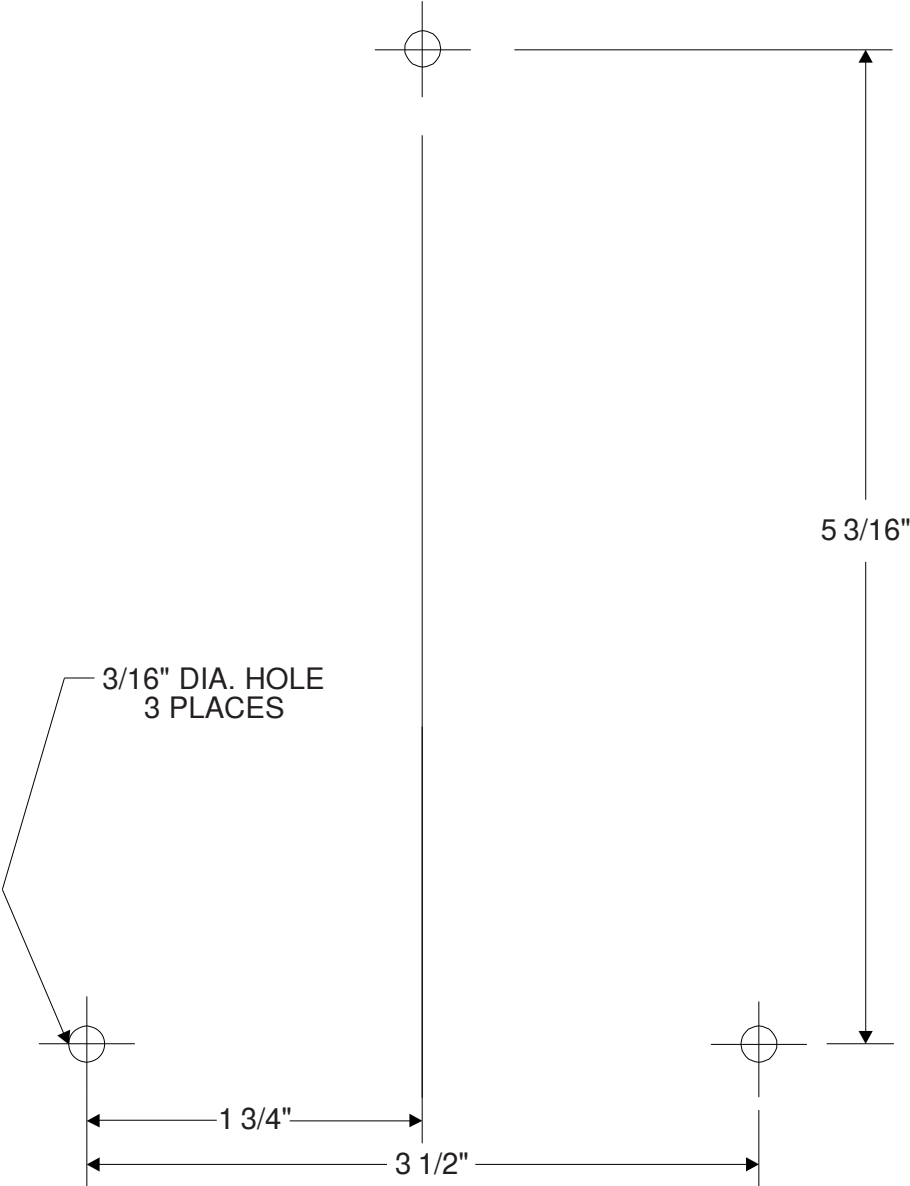
1. Remove cover of the Pressure Switch on the Auto Pump.
2. Wire the pressure switch to the battery and a good chassis ground, use #14 AWG WIRE MINIMUM .
3. Reinstall cover of Pressure Switch .
4. The compressor is calibrated to cut-in at 75 PSI and cut-out at 95 PSI . For higher cut-in and cut-out, turn the range nut clockwise . To lower cut-in turn range nut counterclockwise . Do not exceed 100 PSI .
5. 091-9 AUTO PUMP can be wired to a positive or negative system vehicle .
6. Optional switch and fuse can be installed as shown (use 20 amp rated switch and 15 amp SLO-BLO fuse).



CAUTION : Observe Correct polarity  
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**COMPRESSOR OUTPUT IS 100 PSI MAXIMUM. DO NOT EXCEED 100 PSI OR YOU WILL VOID WARRANTY.**

# TEMPLATE AUTO PUMP



# SPECIFICATION & OUTLINE AUTO PUMP

**Input :** 12 volts D.C. @ 12 Amperes

**Weight:** 6 lbs

**Motor Horsepower:** .10 HP

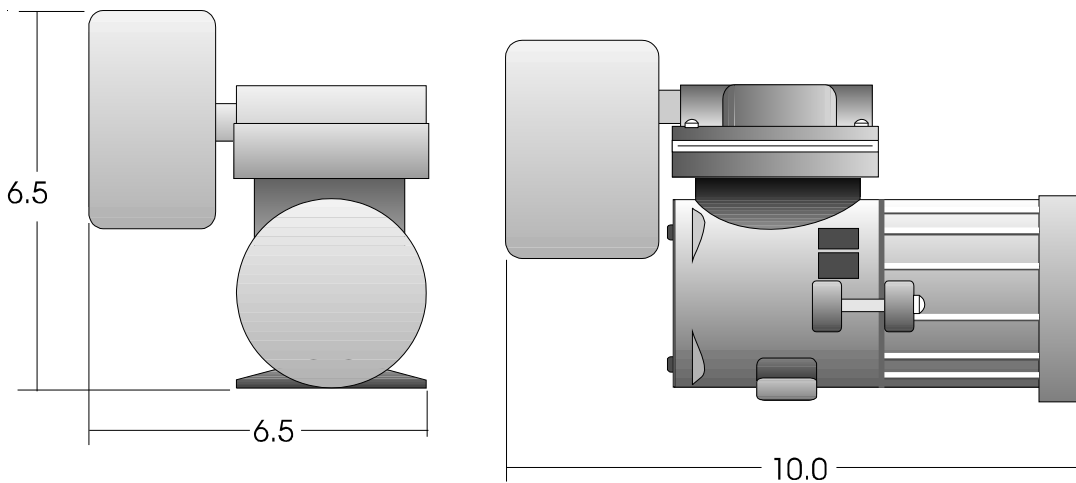
**Motor Type:** Permanent Magnet

**Compressor Output:** .30 SCFM @ 80 PSI  
.35 SCFM @ 60 PSI

**Pressure Switch:** Adjustable Set Point-Factory  
set to 75 PSI - Cut in

**Switch Differential:** 18 PSI Nominal

**Outlet Connection:** 1/4 NPT, Female



OUTLINE AUTO PUMP

## ACCESSORIES

### MOUNTING PLATE



MODEL # 091-9H  
FOR SIMPLIFIED MOUNTING

### AUTO CLEAN



A miniature air filter to mount in the output pressure line of the Auto Pump to trap moisture . The micron filter element removes any contaminants from the air line . A transparent bowl permits easy monitoring of water collected and a manual purge valve allows the operator to conveniently drain the bowl.

MODEL # 091-9G

AUTO PUMP REBUILDING KIT 091-9E IS AVAILABLE .

### WARRANTY

All Auto Pumps of Kussmaul Electronics Company Inc. are warranted to be free of defects of material or workmanship. Liability is limited to repairing or replacing at our factory, without charge, any material or defects which become apparent in normal use within 1 year from the date the equipment was shipped. Equipment is to be returned, shipping charges prepaid and will be returned, after repair, shipping charges paid.

Kussmaul Electronics Company, Inc. shall have no liability for damages of any kind to associated equipment arising from the installation and /or use of the Kussmaul Electronics Company, Inc. products. The purchaser, by the acceptance of the equipment, assumes all liability for any damages which may result from its installation, use or misuse, by the purchaser, his or its employees or others.

**CAUTION:** WATER IN THE PUMP OUTLET  
WILL INDUCE FAILURE

**WATER DAMAGE OR OPERATING AUTO  
PUMP OVER 100 PSI WILL VOID WARRANTY**